

Trigeminal Nerve Program Transcript

These diagrams show the branches of the trigeminal nerve. On the left, the branches of the ophthalmic division and the maxillary division are superimposed on the skull. Notice that the ophthalmic branches tend to concentrate in the area around the eye, while the branches of the maxillary division go to the palate, upper teeth, and just below the orbit.

In the lower-left diagram is the mandibular division of the trigeminal nerve. This is the only part of the trigeminal system that has motor fibers. The motor fibers here go to the muscles of mastication, temporalis, masseter, medial and lateral pterygoids, as well as sensation to the teeth and to the tongue and also to parts of the side of the jaw and the front part of the jaw.

On the right-hand side are line drawings of each of the three divisions of the trigeminal. At the top is the ophthalmic division, with its branches going, again, primarily around the orbit in the supratrochlear, supraorbital, and infratrochlear regions. The maxillary division below shows the branches going to the hard and soft palate, also, the upper teeth, and sensory parts going over the area of the zygomatic arch and below the eye.

The mandibular division has its branches going to the medial and lateral pterygoid, temporalis, and masseter. The buccal branch. The auriculotemporal sensory branch is going to the area of the lateral jaw and the cheek area. The infraorbital nerve is sensory to the lower teeth and motor to the mylohyoid muscle and the anterior digastric. The lingual is the sensory nerve to the anterior two-thirds of the tongue.

Notice that running with lingual nerve is the chorda tympani. The chorda tympani is a branch of the facial nerve, which runs with the lingual nerve to provide taste to the anterior 2/3 of the tongue.